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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,769	09/21/2001	Steven Soria JR.	STL920000113US1	6311
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Paul D. Greeley, Esq. Ohlandt, Greeley, Ruggiero & Perle, L.L.P. 10th Floor One Landmark Square Stamford, CT 06901-2682		EXAMINER HONEYCUTT, KRISTINA B		
		ART UNIT PAPER NUMBER		
		2178		
DATE MAILED: 12/02/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/960,769

Applicant(s)

SORIA ET AL.

Examiner

Kristina B. Honeycutt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/18/01.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This action is responsive to communications: Application filed September 21, 2001; I.D.S. filed December 18, 2001.
2. Claims 1-43 are pending in the case. Claims 1, 17 and 31 are independent claims.

### ***Drawings***

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 200 on page 5, line 23. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

4. Claim 27 recites the limitation "said first table" in line 2. There is insufficient antecedent basis for this limitation in the claim. Claim 28 is rejected along the same rationale.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 8-10, 12-15, 17, 18, 24, 25, 27-29, 31, 32, 38, 39, 41 and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Sinander (WO 99/08206).

**Regarding independent claim 1**, Sinander discloses a method for supporting versioning of data, said method comprising the steps of:

- associating version numbers, each having a different value, with a data item (p.7, Table 1 – as demonstrated in the table, different version numbers are associated with data);
- storing a most recent version of said data item in a first table (p.2, lines 36-37; p.3, lines 16-25; p.4, lines 2-4; p.5, lines 9-14; Figures 2b, 3, 4 – as

demonstrated in the figures and cited text, the most recent version of data is stored in a "first" table);

- storing a version of said data item other than said most recent version in a second table (p.2, lines 33-35; p.3, lines 16-25; p.8, lines 4-9; Figures 2b, 3, 4 – as demonstrated in the figures and cited text, other versions of data is stored in a "second" table); and
- determining the version of a stored data item based on said version number and a storage location of said stored data item (p.7, lines 25-35; p.8, lines 4-9, 15-25; Figures 2b, 3, 4 – as demonstrated in the figures and cited text, the version is determined based on version number and location).

**Regarding dependent claim 2**, Sinander discloses the method of claim 1, further comprising:

- the step of associating said version number with a version of said stored data item (p.7, Table 1, lines 25-35 – as demonstrated in the table and cited text, the version number is associated with data).

**Regarding dependent claim 8**, Sinander discloses the method of claim 1, wherein:

- said version number having a value of zero (0) is associated with said most recent version of said stored data item or an oldest version of said stored data item, depending on a context of use for said version number (p.7, Table 1, lines

23-35; p.8, lines 4-9 – as demonstrated in the table and cited text, a value of zero is associated with the oldest version of data).

**Regarding dependent claim 9**, Sinander discloses the method of claim 1, further comprising:

- the step of performing an operation on said first and said second table (p.8, lines 4-9 – as demonstrated in the cited text, an operation is performed on the tables).

**Regarding dependent claim 10**, Sinander discloses the method of claim 9, wherein:

- said operation including said version number having a value of zero (0) is interpreted as a request for said most recent version of said stored data item, and said operation is selected from a group consisting of a query operation, a retrieve operation, and an update operation (p.2, lines 33-37; p.7, lines 25-28; p.8, lines 4-9 – as demonstrated in the cited text, operation is an “update” operation and most recent version is requested).

**Regarding dependent claim 12**, Sinander discloses the method of claim 1, further comprising:

- a step of performing a query for said stored version for said data item (p.7, lines 25-35 – as demonstrated in the cited text, a “query” is performed on data).

**Regarding dependent claim 13**, Sinander discloses the method of claim 1, wherein:

- a first instance of a version of said data item is stored in said first table (p.4, lines 2-4; p.7, lines 23-35; figures 2b, 3, 4 – as demonstrated in the figures and cited text, a “first” version of the data is stored in a “first” table).

**Regarding dependent claim 14**, Sinander discloses the method of claim 1, further comprising:

- the step of performing a query on said first table and said second table wherein a column attribute of a column selected by said query is retained in a result of said query (p.7, Table 1; p.8, lines 4-9 – as demonstrated in the table and cited text, a column attribute is retained as a result of “query”).

**Regarding dependent claim 15**, Sinander discloses the method of claim 14, wherein:

- said query invokes a union operation (p.3, lines 1-7, 16-25 – as demonstrated in the cited text, a “union” operation is invoked).

**Regarding independent claim 17**, Sinander discloses a system for supporting versioning of data, said system comprising:

- a memory (Figure 1; p.4, lines 26-27 – as demonstrated in the figure and cited text, a memory is disclosed);
- means for associating version numbers, each having a different value, with a data item (p.7, Table 1 – as demonstrated in the table, different version numbers are associated with data);

- means for storing a most recent version of said data item in said memory and a second table for storing a version of said data item other than said most recent version in said memory (p.2, lines 33-37; p.3, lines 16-25; p.4, lines 2-4; p.5, lines 9-14; p.8, lines 4-9; Figures 2b, 3, 4 – as demonstrated in the figures and cited text, the most recent version of data and another version of the data are stored); and
- means for determining the version of a stored data item based on said version number and a storage location of said stored data item (p.7, lines 25-35; p.8, lines 4-9, 15-25; Figures 2b, 3, 4 – as demonstrated in the figures and cited text, the version is determined based on version number and location).

**Regarding dependent claims 18, 24, 25 and 27-29**, the claims reflect the system with means for performing the operations of claims 2, 8, 10 and 13-15 respectively and are rejected along the same rationale.

**Regarding claims 31, 32, 38, 39, 41 and 42**, the claims reflect the storage medium having computer readable instructions for performing the operations of claims 1, 2, 8, 10, 14 and 15 respectively and are rejected along the same rationale.

***Claim Rejections - 35 USC § 103***



The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-6, 19-22 and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sinander (WO 99/08206) in view of Frey et al. (U.S. Patent 5410695).

**Regarding dependent claim 3**, Sinander does not disclose stored data item is associated with a (version number - 1) value. Frey teaches an associated value (col. 19, lines 23-26). It would have been obvious to one of ordinary skill in the art, having the teachings of Sinander and Frey before him at the time the invention was made, to modify the method taught by Sinander to include associated values as taught by Frey, because associating a value with stored data would increase the probability of the correct version being retrieved since the value could be checked during a query along with the version number.

**Regarding dependent claim 4**, Sinander does not disclose the version of said stored data item is determined based on said (version number - 1) value. Frey teaches a value and version number being associated (col. 19, lines 23-26). It would have been obvious to one of ordinary skill in the art, having the teachings of Sinander and Frey before him

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at the time the invention was made, to modify the method taught by Sinander to include associated values and version numbers as taught by Frey, because associating a value with stored data would increase the probability of the correct version being retrieved since the value could be checked during a query along with the version number.

**Regarding dependent claim 5**, Sinander does not disclose the step of generating a value for said (version number - 1) value by incrementing said (version number - 1) value from zero (0) to n. Frey teaches incrementing a value (col. 19, lines 23-26). It would have been obvious to one of ordinary skill in the art, having the teachings of Sinander and Frey before him at the time the invention was made, to modify the method taught by Sinander to include incrementing a value as taught by Frey, because associating a value with stored data would increase the probability of the correct version being retrieved since the value could be checked during a query along with the version number.

**Regarding dependent claim 6**, Sinander does not disclose the step of generating a value for said version number by incrementing said version number from zero (0) to m. Frey teaches incrementing a version number (col. 19, lines 23-26). It would have been obvious to one of ordinary skill in the art, having the teachings of Sinander and Frey before him at the time the invention was made, to modify the method taught by Sinander to include incrementing a version number as taught by Frey, because associating a value with stored data would increase the probability of the correct version

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being retrieved since the value could be checked during a query along with the version number.

**Regarding dependent claims 19-22 and 33-36**, the claims reflect the system and storage medium for performing the method of claims 3-6 and are rejected along the same rationale.

7. Claims 7, 23 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sinander (WO 99/08206) in view of Frey et al. (U.S. Patent 5410695) in further view of Akkary et al. (U.S. Patent 6591342).

**Regarding dependent claim 7**, Sinander does not disclose m has a predetermined maximum value. Akkary teaches a predetermined maximum value (col. 12, lines 55-65). It would have been obvious to one of ordinary skill in the art, having the teachings of Sinander and Akkary before him at the time the invention was made, to modify the method taught by Sinander to include a predetermined maximum value as taught by Akkary, because incrementing to a predetermined maximum value would ensure that storage does not fill if the maximum value were associated with the storage capacity so that new versions could be saved. It would have been advantageous to one of ordinary skill to utilize such combination because using a predetermined maximum number would allow older versions that were obsolete to be removed from storage so that new versions could be saved in the freed space.

**Regarding dependent claims 23 and 37**, the claims reflect the system and storage medium for performing the method of claim 7 and are rejected along the same rationale.

8. Claims 11, 26 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sinander (WO 99/08206) in view of Duvillier et al. (U.S. Pub. No. 20020103815).

**Regarding dependent claim 11**, Sinander discloses said operation including said version number having a value of zero (0) is interpreted as a request for an oldest version of said stored data item (p.7, lines 25-35).

Sinander does not disclose a delete operation. Duvillier teaches a delete operation (p.6, para. 79). It would have been obvious to one of ordinary skill in the art, having the teachings of Sinander and Duvillier before him at the time the invention was made, to modify the method taught by Sinander to include a delete operation as taught by Duvillier, because deleting older versions of data would ensure that storage does not fill to capacity so new versions could be saved. It would have been advantageous to one of ordinary skill to utilize such combination because allowing older, obsolete versions to be removed from storage would free space for new versions to be saved.

**Regarding dependent claims 26 and 40**, the claims reflect the system and storage medium for performing the method of claim 11 and are rejected along the same rationale.

9. Claims 16, 30 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sinander (WO 99/08206) in view of Schwartz et al. (U.S. Pub. No. 20020073089).

**Regarding dependent claim 16**, Sinander does not disclose column attribute is obtained from a sequential query language description area of said query result. Schwartz teaches SQL obtains column attributes (p.6, para. 71). It would have been obvious to one of ordinary skill in the art, having the teachings of Sinander and Schwartz before him at the time the invention was made, to modify the method taught by Sinander to include SQL obtaining column attributes as taught by Schwartz, because SQL was well-known at the time of the invention for querying and using a well-known language would have allowed more users to utilize the invention since there was a familiarity with SQL.

**Regarding dependent claims 30 and 43**, the claims reflect the system and storage medium for performing the method of claim 16 and are rejected along the same rationale.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Intelligent page store for concurrent and consistent access to a database by a transaction processor and a query processor (U.S. Patent 5317731),
- Building indexes on columns containing large objects (U.S. Patent 6243718),
- Systems and methods for backing up data files (U.S. Patent 6779003),
- Method and apparatus for simplified research of multiple dynamic databases (U.S. Pub. No. 20020091907),
- System for software update in manner based on processing properties of devices via maintenance network while allowing data transmission between devices on another network (U.S. Patent 5859977).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristina B. Honeycutt whose telephone number is 571-272-4123. The examiner can normally be reached on 8:00 am - 5:00 pm Monday-Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on 571-272-4124. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KBH



STEPHEN S. HONG  
PRIMARY EXAMINER